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09/299,383 04/27/99 BOWERS

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EXAMINER

PATEL, H

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 03/03/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

## Office Action Summary

Application No.

09/299,383

Applicant(s)

BOWERS, JAMES R.

Examiner

Harshad Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 1999 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

### Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892)
- 15) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_
- 17) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other: \_\_\_\_

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***Drawings***

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.
2. The drawings are objected to because as listed on page 5, numerals 24 and 35 are not shown in any figures. Correction is required.

***Claim Objections***

3. Claims 1- are objected to because of the following informalities:  
  
Claim 1, at lines 6, 7, 9 and 10, before the term “element”, --sensing-- should be inserted.  
  
Claim 3, at line 2, “a” should be removed, and at line 7, --module-- should be inserted after “element”.  
  
Claim 4, at line 1, after “element”, --module-- should be inserted. At line 3, “such” should be removed.  
  
Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.  
  
Claim 1: there is no structural relationship of the exterior instrument taps defined in relation to the sensing element module or the housing. “each array” at line 11 lacks

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antecedent basis. The examiner suggests that “each array” at line 7 be replaced by, --said total pressure sensing pitot tube array--.

At line 12, the term, “and/or” renders the claim indefinite as to whether flow rate is indicated or a flow rate signal is transmitted.

Claim 2: there is no structural relationship of the total pressure manifold.

Claim 3, it is unclear at line 5 as to how many pressure sensing tubes are claimed. As understood, there is only one static pressure sensing pitot tube. The applicant is advised to remove “each” from line 5 and after “sensing” (second occurrence) insert --pitot--. At line 8, it is unclear as to the phrase, “each said pitot tube” as to what pitot tube is the applicant referring to since there are static pressure sensing pitot tubes and total pressure sensing pitot tubes. Furthermore, as understood, there is only one static pressure sensing pitot tube and hence “each” should be removed.

Claim 4: at line 5, “the total number and location of sensing ports” lacks antecedent basis.

Claim 6, “instrumentation taps” lacks antecedent basis. It is unclear as to what individual gas flow sensing element modules is the applicant referring to. “and/or” renders the claim vague and indefinite.

Claim 7: it is unclear as to the preamble which now uses a plurality of high temperature gas flow sensing element modules as described in claim 1, whereas, claim 2 describes a single gas flow sensing element module.

Claim 7, at lines 4, 6, 10 and 13, the applicant refers to “a plurality of gas flow sensing element modules” which is unclear as to whether they are the same modules or different

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ones. At line 7, "said inlets and outlets of said flow sensing element modules" lack antecedent basis. At line 8, "the upper and lower edges of said inlets and outlets" lack antecedent basis. At line "the plenum or duct" lack antecedent basis.

Claim 8: "the entire gas flow sensing element" lacks antecedent basis. The term, "and/or" at lines 3 and 10 renders the claim vague and indefinite. At lines 5-6, "said total pressure manifolds", "said static pressure Pitot tubes" and "said gas flow sensing element modules" lacks antecedent basis. At lines 7-8, it is unclear as to how the instrumentation piping mechanically averages the total and static pressure. At line 9, "said averaged total and static pressures" lacks antecedent basis. The claim as disclosed does not have any structural relationship among parts.

Claim 9: it is unclear as to the phrase, "gas flow sensing element module isolating piping". At lines 3, 5-9 and 12, "the entire flow element", "said total pressure manifolds", "said static pressure pitot tubes", "said gas flow sensing element modules", "the total and static pressure", "said gas flow sensing element", "said averaged total and static pressures" and "said pressure averaging piping" lack antecedent basis. At lines 3, 10 and 13, the term, "and/or" renders the claim vague and indefinite. The claim has no structural relationship among parts.

The applicant is advised to thoroughly check the claims for 112 second paragraph issues and for the relationship of parts to better understand the invention since the claims are replete with 112 second paragraph issues.

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### *Double Patenting*

6. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-6 are rejected under the judicially created doctrine of double patenting over claims 1-20 of U. S. Patent No. 5,736,651 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: a high temperature gas flow sensing element comprising a housing having an inlet and an outlet forming a hollow interior, a total pressure sensing pitot tube array affixed within

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the housing traversing the interior cross sectional area, a static pressure sensing pitot tube affixed within the housing and traversing the interior cross sectional area and exterior instrument taps for connection of the arrays to the differential pressure instrument.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

9. Claims 7-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 5,736,651. Although the conflicting claims are not identical, they are not patentably distinct from each other because providing a plurality of modules with a multiple of the total pressure and static pressure arrays disposed in the path of the flow would have been an obvious design choice in order to accommodate the entire cross sectional area of the conduit to which the module or modules is to be attached. A wider area of the conduit would be covered when a multiple of such modules are arranged with each other.

#### ***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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11. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Brandt (4,297,900).

Brandt shows a gas flow sensing element (12), housing (14), total pressure sensing pitot tube array (22), static pressure sensing pitot tube (30) and connected to the manifold (26).

*Claim Rejections - 35 USC § 103*

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandt.

Brandt shows all the features of the instant invention except for the manifold comprising an elongated metal tube or a plurality of gas flow sensing elements arranged in a fashion to form a modular gas flow sensing element. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form a connection tubing of an elongated form compared to a circular form since it is nothing more than an alternative for such elongation of the manifold to correspond to the shape of the module section. Furthermore, providing a series of individual flow sensing element sections to form a modular element would have been obvious design choice in order to determine the gas flow in a bigger and wider unit where a plurality of elements form a modular unit to fit in the cross sectional area of the conduit through which the medium flows.



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*Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

DeBaun et al. (4,594,888), Taddeo (4,768,386), Shortridge (4,911,021), and Woodbury (5,481,925) show a plurality of total pressure sensing pitot tube arrays and static pressure pitot tube arrays mounted in a sectional unit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harshad Patel whose telephone number is (703) 305-4935. The examiner can normally be reached on M-Th (7:00 AM-5:30 PM).



*Harshad Patel*  
*Primary Examiner*  
*Art Unit 2855*

H. P.  
March 1, 2000